

Abstract

Water-soluble, biologically degradable copolymers based on polyamide are described which contain at least one grafted side chain composed of aldehydes and sulfur-containing acids and salts thereof and optionally at least one compound from the series ketones, aromatic alcohols, urea (derivatives) and amino-s-triazines. Natural polyamides such as caseins, gelatins, collagens, bone glues, blood albumins and soya proteins as well as degradation products thereof and synthetic polyamides such as polyaspartic acids and copolymers of aspartic and glutamic acid are used as preferred polyamide components. These copolymers are obtained primarily by graft polymerization at temperatures between -10 and 250°C, preferably in the presence of a solvent such as water or by thermal drying and they are used in particular as flow agents or water retention agents for inorganic binders and pigments especially in combination with hydraulic binders they only have a very slight setting-retardant effect.